AMENDMENTS TO THE CLAIMS

This listing of the claims replaces all prior versions and listings of claims in the application:

Listing of Claims

1. (currently amended) A transconnector for coupling first and second longitudinal spinal rods, the transconnector comprising:

a pair of hook members, each hook member having a recess for receiving one of the longitudinal spinal rods; each recess further having an axis;

a lateral rod for interconnecting the hook members, the lateral rod comprising a first end and a second end, the first and second ends having flanges located thereon; and

a pair of universal joints for interconnecting the hook members with the lateral rod, at least one universal joint comprising a locking sleeve and a bushing, the locking sleeve sized and configured to be slidably moveable along the lateral rod;

wherein each hook member includes a through bore having an axis for receiving a wedge member, the through bore axis being orientated substantially perpendicular to the recess axis.

2. (original) A transconnector according to claim 1, wherein the lateral rod further comprises a first end, a second end, and a midpoint located therebetween, the at least one through bore being located farther from the midpoint than its associated hook recess.

3. (original) A transconnector according to claim 1, wherein the recess is positioned laterally inboard from the axis of the longitudinal spinal rod and the through bore is positioned laterally outboard from the axis of the longitudinal spinal rods.

4. (currently amended) A transconnector according to claim 1, wherein at least one hook member further ~~comprise~~ comprises a bore for receiving at least a portion of the universal joint.

5. (previously presented) A transconnector according to claim 4, wherein at least one of the universal joints further comprises an outer convex surface and the bore comprises a corresponding inner concave surface, the two surfaces configured to be slidably engageable.

6. - 8. (canceled)

9. (currently amended) A transconnector according to ~~claim 6~~ claim 1, wherein the bushing is sized and configured to be positioned between the locking sleeve and the hook member thereby permitting the lateral rod to be universally adjustable with respect to the hook member.

10. (original) A transconnector according to claim 9, wherein the bushing further comprises an outer convex surface and the hook member further comprises a bore having a corresponding inner concave surface, the two surfaces configured to be slidably engageable.

11. (currently amended) A transconnector ~~according to claim 6,~~ for coupling first and second longitudinal spinal rods, the transconnector comprising:

a pair of hook members, each hook member having a recess for receiving one of the longitudinal spinal rods; each recess further having an axis, each hook member including a through bore having an axis for receiving a wedge member, the through bore axis being orientated substantially perpendicular to the recess axis;

a lateral rod for interconnecting the hook members; and

a pair of universal joints for interconnecting the hook members with the lateral rod, at least one universal joint comprising a locking sleeve and a bushing;

wherein the locking sleeve further comprises a first end, a second end, and a through bore extending from the first end to the second end, the through bore being sized and configured to receive the lateral rod therein, and the bushing comprises a third end and a forth end, and a second through bore extending from the third end to the fourth end, the second through bore being sized and configured to receive the locking sleeve therein.

12. (original) A transconnector according to claim 11, wherein the bushing is sized and configured to be slidably moveable along the locking sleeve.

13. (original) A transconnector according to claim 12, wherein the locking sleeve further comprises a first and second flange.

14. (original) A transconnector according to claim 11, wherein the locking sleeve has a first outer diameter at the first end and a second outer diameter at the second end, the second outer diameter being greater than the first outer diameter.

15. (original) A transconnector according to claim 11, wherein the locking sleeve further comprises a slit extending from the first end to the second end; and the bushing further comprises a slit extending from the third end to the fourth end.

16. (original) A transconnector according to claim 11, wherein the universal joint has an unlocked configuration in which the locking sleeve and the bushing may slide with respect to each other, and the universal joint can rotate with respect to the hook engaging member, and a locked configuration in which the sleeve and the bushing are axially and rotatably fixed.

17. (original) A transconnector according to claim 16, wherein moving the locking sleeve along the lateral rod from a first position in which the second bore is in substantial alignment with the first outer diameter of the locking sleeve to a second position in which the second bore is in substantial alignment with the second outer diameter of the locking sleeve configures the universal joint from the unlocked to the locked position.

18. (original) A transconnector according to claim 17, wherein moving the locking sleeve from the first to the second position further axially and rotatably locks the universal joint to the lateral rod.

19. (original) A transconnector according to claim 1, wherein at least one hook recess has a first radius, and the associated longitudinal rod has a second radius, the first radius being substantially identical to the second radius.

20. (original) A transconnector according to claim 1, wherein at least one wedge member has a bearing surface shaped and configured to substantially conform to the outer surface of the associated longitudinal spinal rod.

21. (currently amended) A transconnector according to claim 1, wherein the wedge member is selected from the group consisting of a set screw ~~or~~ and a quarter turn cam.

22. (currently amended) A transconnector according to claim 1, further comprising at least one tool engagement recess formed on one of the ~~group consisting of a~~ hook ~~engagement member~~ members or ~~a~~ the lateral rod.

23. (original) A transconnector according to claim 22, further comprising a first tool engagement recess and a second engagement recess formed opposite the first tool engagement recess.

24. (currently amended) A transconnector according to claim 22, wherein the at least one tool engagement recess is configured for gripping one of the ~~group consisting of a~~ hook ~~engaging~~ members or ~~a~~ the lateral rod with a forceps.

25. (currently amended) A transconnector according to claim 22, wherein the at least one tool engagement recess is configured for gripping from above when the ~~group consisting of a~~ hook ~~engaging~~ member or ~~a~~ lateral rod is engaged.

26. (previously presented) A transconnector for coupling first and second longitudinal spinal rods, each spinal rod having a longitudinal axis, the transconnector comprising:

a pair of hook members, each hook member having a recess for receiving one of the longitudinal spinal rods and a through bore having an axis for receiving a wedge member, the through bore being orientated substantially perpendicular to the axis of the longitudinal spinal rod;

a lateral rod for interconnecting the hook members, the lateral rod having a first end and a second end, the first and second ends having flanges located thereon; and

a pair of locking elements for interconnecting the hook members with the lateral rod, each locking element comprising a locking sleeve and a bushing, the locking sleeve sized and configured to be slidably moveable along the lateral rod;

wherein each locking element has an unlocked configuration in which the locking element may move relative to the lateral rod, and a locked configuration in which the locking element is fixed relative to the lateral rod.

27. (original) A transconnector according to claim 26, wherein the lateral rod further comprises a first end, a second end, and a midpoint located therebetween, the at least one through bore being located farther from the midpoint than its associated hook recess.

28. (original) A transconnector according to claim 26, wherein the recess is positioned laterally inboard from the axis of the longitudinal spinal rod and the through bore is positioned laterally outboard from the axis of the longitudinal spinal rods.

29. (original) A transconnector according to claim 26, wherein at least one hook member further comprises a bore for receiving at least a portion of the lateral rod.

30. (original) A transconnector according to claim 29, wherein the locking element further comprises an outer convex surface and the bore further comprises a corresponding inner concave surface, the two surfaces configured to be slidably engageable.

31. – 33. (canceled)

34. (previously presented) A transconnector according to claim 26, wherein the bushing is sized and configured to be positioned between the locking sleeve and the hook member thereby permitting the lateral rod to be universally adjustable with respect to the hook member.

35. (original) A transconnector according to claim 34, wherein the bushing further comprises an outer convex surface and the hook member further comprises a bore having a corresponding inner concave surface, the two surfaces configured to be slidably engageable.

36. (previously presented) A transconnector for coupling first and second longitudinal spinal rods, each spinal rod having a longitudinal axis, the transconnector comprising:

a pair of hook members, each hook member having a recess for receiving one of the longitudinal spinal rods and a through bore having an axis for receiving a wedge member, the through bore being orientated substantially perpendicular to the axis of the longitudinal spinal rod;

a lateral rod for interconnecting the hook members; and

a pair of locking elements for interconnecting the hook members with the lateral rod, each locking element comprising a locking sleeve and a bushing; wherein:

each locking element has an unlocked configuration in which the locking element may move relative to the lateral rod, and a locked configuration in which the locking element is fixed relative to the lateral rod; and

the locking sleeve further comprises a first end, a second end, and a through bore extending from the first end to the second end, the through bore being sized and configured to receive the lateral rod therein, and the bushing comprises a third end and a forth end, and a second through bore extending from the third end to the fourth end, the second through bore being sized and configured to receive the locking sleeve therein.

37. (original) A transconnector according to claim 36, wherein the bushing is sized and configured to be slidably moveable along the locking sleeve.

38. (original) A transconnector according to claim 37, wherein the locking sleeve further comprises a first and second flange.

39. (original) A transconnector according to claim 36, wherein the locking sleeve has a first outer diameter at the first end and a second outer diameter at the second end, the second outer diameter being greater than the first outer diameter.

40. (original) A transconnector according to claim 36, wherein the locking sleeve further comprises a slit extending from the first end to the second end; and the bushing further comprises a slit extending from the third end to the fourth end.

41. (original) A transconnector according to claim 36, wherein the locking sleeve and the bushing are axially and rotatably adjustable in the unlocked configuration and axially and rotationally fixed in the locked configuration.

42. (original) A transconnector according to claim 41, wherein moving the locking sleeve along the lateral rod from a first position to a second position configures the universal joint from the unlocked to the locked position.

43. (original) A transconnector according to claim 42, wherein moving the locking sleeve from the first to the second position further axially and rotatably locks the locking element to the lateral rod.

44. (original) A transconnector according to claim 26, wherein at least one hook recess has a first radius, and the associated longitudinal rod has a second radius, the first radius being substantially identical to the second radius.

45. (original) A transconnector according to claim 26, wherein at least one wedge member has a bearing surface shaped and configured to substantially conform to the outer surface of the associated longitudinal spinal rod.

46. (currently amended) A transconnector according to claim 26, wherein the wedge member is selected from the group consisting of a set screw ~~or~~ and a quarter turn cam.

47. (currently amended) A transconnector according to claim 26, further comprising at least one tool engagement recess formed on one of the ~~group consisting of a~~ hook ~~engagement member~~ members or ~~a~~ the lateral rod.

48. (original) A transconnector according to claim 47, further comprising a first tool engagement recess and a second engagement recess formed opposite the first tool engagement recess.

49. (currently amended) A transconnector according to claim 47, wherein the at least one tool engagement recess is configured for gripping one of the ~~group consisting of a~~ hook ~~engaging~~ members or ~~a~~ the lateral rod with a forceps.

50. (currently amended) A transconnector according to claim 47, wherein the at least one tool engagement recess is configured for gripping from above when the ~~group consisting of a~~ hook ~~engaging~~ member or ~~a~~ lateral rod is engaged.

51. - 75. (canceled)